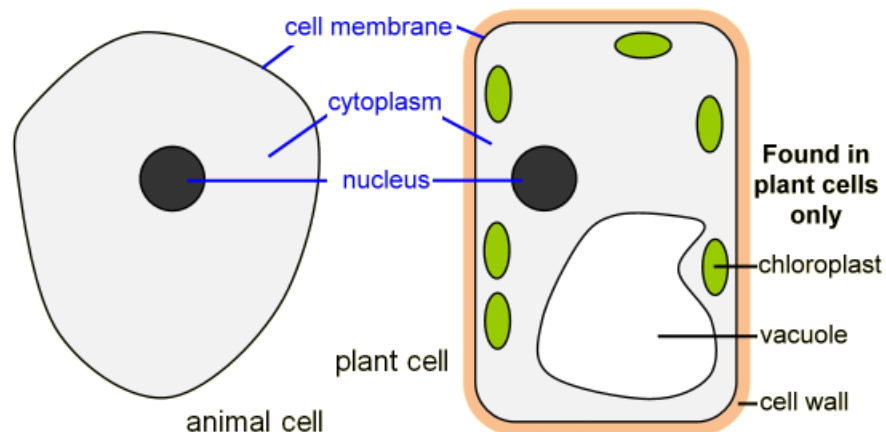


Plant & Animal Cells Study Guide

Due Monday, September 30th

Cells

Everything on Earth is made up of atoms and molecules. So what makes you different from something like a rock? You, like all living things, are made of cells. Cells are the basic units of life. Some cells are very simple, and others are more complex. You, a cat, and a tree are examples of living things that are made of complex cells that have parts enclosed by a membrane. *Trees and cats are made of cells* Complex cells come in two kinds—plant cells and animal cells. They have several parts in common. They both have a cell membrane, nucleus, cytoplasm, and vacuoles. The cell membrane is like the skin of the cell. It holds everything together and controls what comes in and goes out of the cell. The nucleus controls what the cell does, kind of like how your brain controls you. Cytoplasm is a jelly-like liquid that fills most of the inside of the cell. Vacuoles are used as storage spaces for the cell. They store food coming into the cell and wastes leaving the cell. Vacuoles in plant cells are much larger than vacuoles in animal cells.

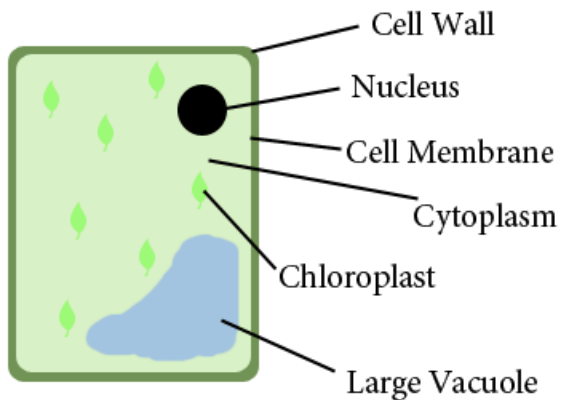


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Plant cells have two unique parts not found in animal cells. The first is a cell wall. The cell wall is found outside the cell membrane. It gives the plant support. The other unique part is the chloroplast. Chloroplasts are where photosynthesis takes place. The nucleus, vacuoles, and chloroplasts are called organelles (“little organs”). Besides these, cells have other organelles in the cytoplasm. These cell pictures don’t show the other organelles. There are different types of plant and animal cells, like skin cells, blood cells, and cells of a plant’s leaves. These cells all look a little different but have the same basic parts.

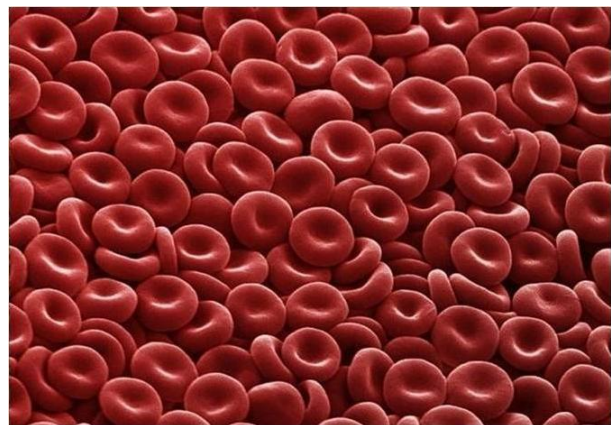
One way to tell the difference between plant and animal cells is how they look. Plant cells are rectangular and box-like in their shape because of their cell walls. Animal cells are more rounded or irregular in shape.



Plant cells are box-like



Animal cells are more rounded

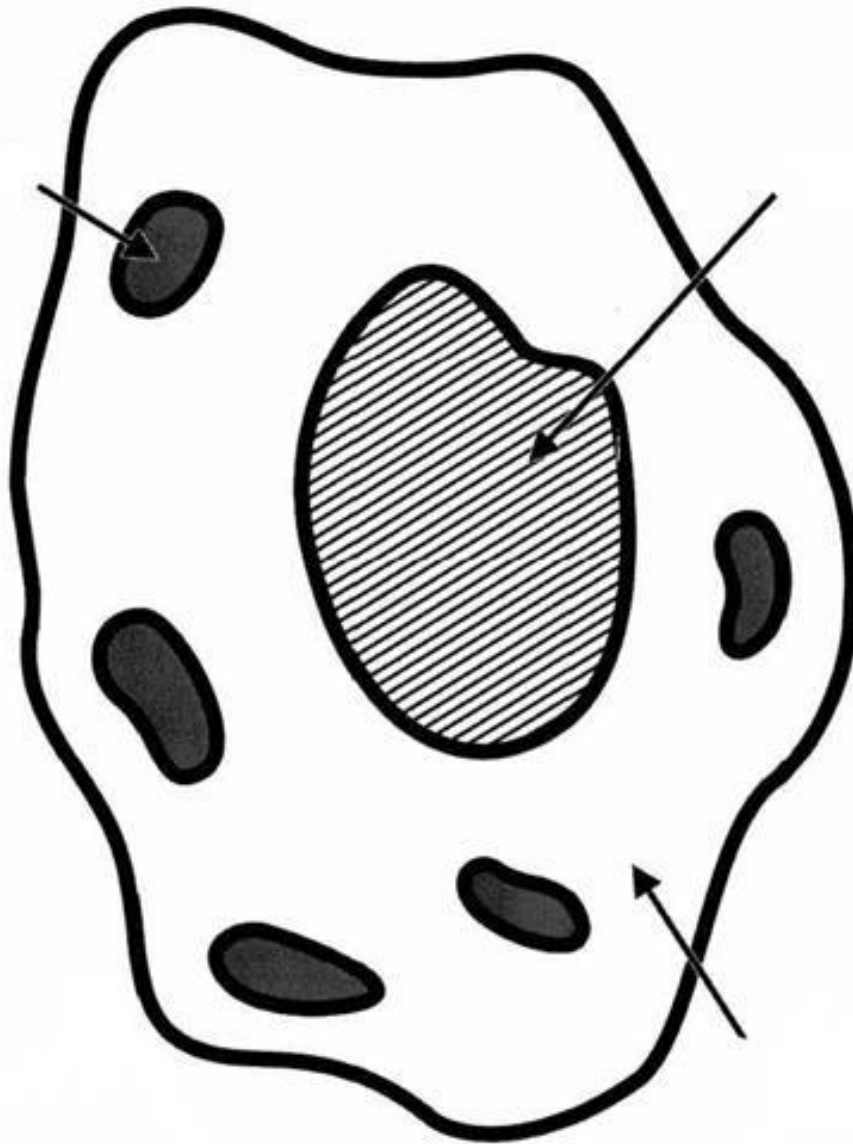


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Animal Cell

Directions: Read the information on the information sheet. Label the parts (structures) and describe each part's job (function).



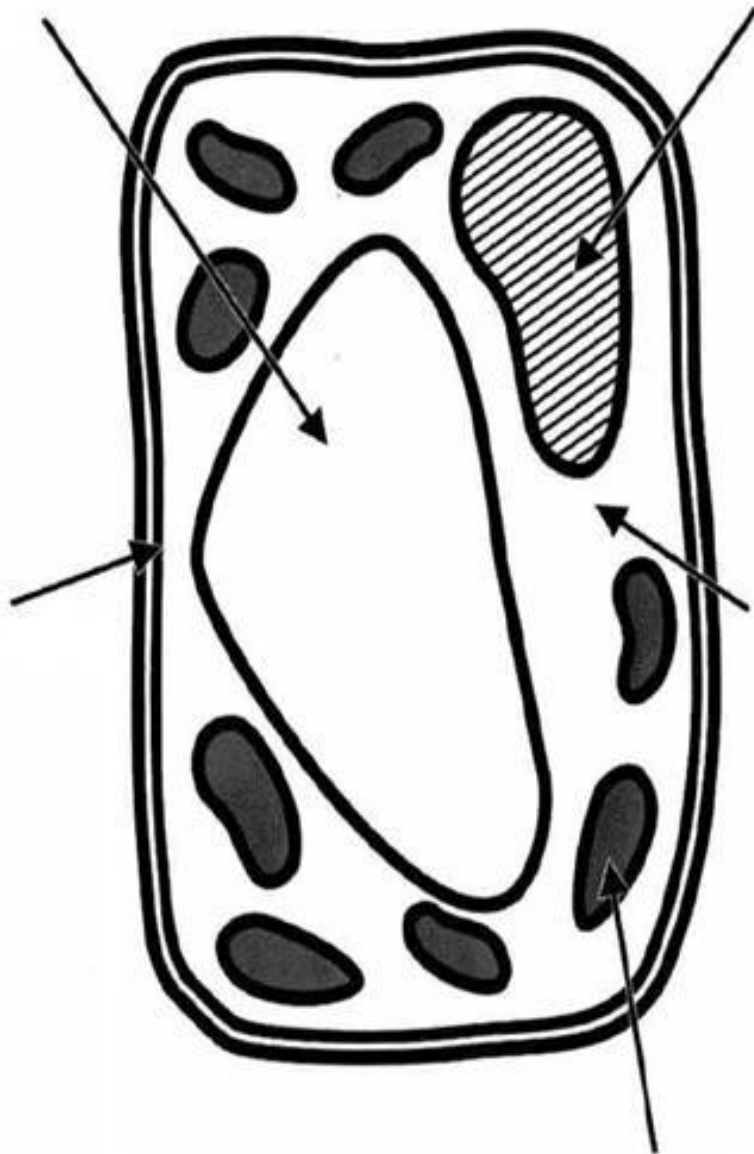
Graphic excerpted from "Cell Mates." AIMS Core Curriculum for Virginia. 2005.

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Plant Cell

Directions: Read the information on the information sheet. Label the parts (structures) and describe each part's job (function).



Graphic excerpted from "Cell Mates." AIMS Core Curriculum for Virginia. 2005.